

The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (canceled)

Claim 2 (canceled)

Claim 3 (canceled)

Claim 4 (canceled)

Claim 5 (canceled)

Claim 6 (canceled)

Claim 7 (previously presented): The liquid composition of claim 16, wherein more than one species of biomolecule is distributed throughout said colloidal suspension and bound to said matrix material particles.

Claim 8 (original): The liquid composition of claim 7, wherein said more than one species of biomolecule comprise two or more different biomolecule probes.

Claim 9 (canceled)

Claim 10 (previously presented): The liquid composition of claim 16, wherein said binding of said biomolecules is covalent binding.

Claim 11 (previously presented): The liquid composition of claim 16, wherein said binding of said biomolecules is non-covalent binding.

Claim 12 (previously presented): The liquid composition of claim 16, wherein said binding of said biomolecules is electrostatic binding.

Claim 13 (previously presented): The liquid composition of claim 16, wherein said binding of said biomolecules is adsorption onto a surface of said matrix material particles.

Claim 14 (canceled)

Claim 15 (currently amended): The liquid composition of ~~claim 18~~ claim 16 wherein a second ~~the~~ reference dye is ~~distributed throughout said colloidal suspension and wherein a concentration of said second reference dye has a known quantitative relationship with said biomolecule used to track the concentration of matrix material during the preparation of the liquid composition.~~

Claim 16 (currently amended): A liquid composition comprising

a colloidal suspension of a biomolecule-binding matrix material uniformly dispersed in a liquid, wherein colloidal particles of said matrix material in said colloidal suspension are of a defined particle size of less than about 1 μm in diameter, and wherein said biomolecule-binding matrix material is selected from the group consisting of nitrocellulose, polyvinyl difluoride and activated nylon;

replicate copies of a biologically active labeled biomolecule, wherein said biomolecules are distributed throughout said colloidal suspension and are bound to said matrix material particles and wherein said biomolecule is selected from the group consisting of a protein, peptide and oligopeptide;

one or more reference dyes distributed throughout said colloidal suspension; and

a blocking biomolecule, wherein said blocking biomolecule blocks ~~unoccupied binding sites on said biomolecule~~ sites on said biomolecule-binding matrix material not occupied by said biomolecule.

Claim 17 (canceled)

Claim 18 (currently amended): The liquid composition of claim 16, wherein a the reference dye is ~~distributed throughout said colloidal suspension and wherein a concentration of said reference dye has a known quantitative relationship with a concentration of said biomolecule binding matrix material~~ a marker for determining the quantity of biomolecule deposited in a spot on a microarray.

Claim 19 (canceled)

Claim 20 (original): The liquid composition of claim 16, wherein said particles of matrix material have a diameter of less than $0.5\mu\text{m}$.

Claim 21 (original): The liquid composition of claim 16, wherein said particles of matrix material have a diameter of less than $0.25\mu\text{m}$.

Claim 22 (canceled)

Claim 23 (canceled)

Claim 24 (canceled)

Claim 25 (canceled)

Claim 26 (canceled)

Claim 27 (canceled)

Claim 28 (canceled)

Claim 29 (canceled)

Claim 30 (canceled)

Claim 31 (canceled)

Claim 32 (canceled)

Claim 33 (canceled)

Claim 34 (canceled)

Claim 35 (canceled)

Claim 36 (canceled)

Claim 37 (canceled)

Claim 38 (canceled)

Claim 39 (canceled)

Claim 40 (canceled)

Claim 41 (canceled)

Claim 42 (canceled)

Claim 43 (canceled)

Claim 44 (canceled)

Claim 45 (canceled)

Claim 46 (canceled)

Claim 47 (canceled)

Claim 48 (canceled)

Claim 49 (canceled)

Claim 50 (previously presented): The liquid composition of claim 16 wherein the biomolecule is a protein.

Claim 51 (previously presented): The liquid composition of claim 50 wherein the biomolecule-binding matrix material is nitrocellulose

Claim 52 (withdrawn): A method for preparing colloidal compositions for use in preparing solid phase biomolecular assays comprising

- a) dispersing a biomolecule-binding matrix material in a liquid medium to form a colloidal suspension of defined particle size of less than 1 μm in diameter, said biomolecule-binding matrix material being selected from the group consisting of nitrocellulose, polyvinyl difluoride and activated nylon;
- b) adding to the liquid medium replicate copies of a biologically active biomolecule, wherein the biomolecules are distributed throughout said colloidal suspension and are bound to the matrix material particles, and wherein said biomolecule is selected from the group consisting of proteins, peptides and oligopeptides; and
- c) incubating the biomolecule/matrix mixture from step (b) with a blocking molecule to occupy unoccupied binding sites on the biomolecule.

Claim 53 (withdrawn): The method of claim 52 which includes the additional step of depositing the liquid composition on a solid support.

Claim 54 (withdrawn): The method of claim 53 wherein the solid support is prepared from a material selected from the group consisting of glass, plastic and polycarbonate.